

## **AMENDMENTS TO THE CLAIMS**

### **In the Claims**

1-81 (canceled)

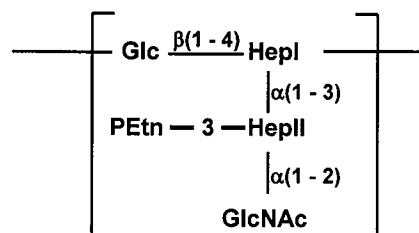
82. (New) An epitope of the lipopolysaccharide inner core of a *Neisseria meningitidis* strain, wherein the epitope selectively reacts with the monoclonal antibody B5 produced by the hybridoma deposited with the accession number IDAC 260900-1.

83. (New) The epitope according to claim 82, wherein the epitope is of the lipopolysaccharide inner core of a *galE* mutant strain of *Neisseria meningitidis* H44/76 immunotype L3.

84. (New) The epitope according to claim 82, wherein said epitope:

- (i) is an epitope of the lipopolysaccharide inner core of a *Neisseria meningitidis* strain having an immunotype selected from the group consisting of: L1, L3, L7, L8, L9, L10, L11, and L12, but not of the lipopolysaccharide inner core of a *Neisseria meningitidis* strain having an immunotype selected from the group consisting of: L2, L4, L5, and L6;
- (ii) when administered to a recipient subject in an immunogenic composition, generates an antibody in the recipient subject, wherein the antibody is capable of selectively binding to said epitope when said epitope is within the lipopolysaccharide of a strain of *Neisseria meningitidis* strain having an immunotype selected from the group consisting of: L1, L3, L7, L8, L9, L10, L11, and L12; and
- (iii) when in the inner core of the lipopolysaccharide of a *Neisseria meningitidis* strain, is accessible to an antibody specifically reactive to said epitope.

85. (New) The epitope according to claim 82, wherein said epitope consists essentially of a phosphoethanolamine (PEtn) group linked to position 3, but not to position 6 or 7, of the HepII moiety of the lipopolysaccharide inner core of *Neisseria meningitidis* immunotype L3, and wherein the epitope is included in a region of the lipopolysaccharide inner core of a strain of *Neisseria meningitidis*, said inner core region having the formula:



86. (New) The epitope according to claim 85, wherein the Glc and the GlcNAc moieties of the lipopolysaccharide inner core region are in co-operative proximity to the phosphoethanolamine group, whereby co-operative interaction between the Glc and the GlcNAc moieties with the phosphoethanolamine group increases the affinity of an antibody specifically binding to said epitope.

87. (New) The epitope according to claim 86, wherein the antibody specifically binding to said epitope is monoclonal antibody B5 produced by the hybridoma deposited with the accession number IDAC 260900-1.

88. (New) The epitope according to claim 85, wherein the region of the lipopolysaccharide inner core is linked to a -KDO-KDO-Lipid A moiety.

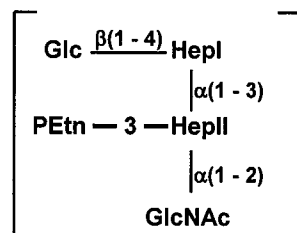
89. (New) The epitope according to claim 85, wherein the Glc is further linked to a moiety, wherein said moiety does not prevent access to the epitope of an antibody specifically reactive to said epitope.

90. (New) The epitope according to claim 85, wherein the region of the lipopolysaccharide inner core is linked to the outer core of a strain of *Neisseria meningitidis*, or a fragment thereof.

91. (New) The epitope of claim 82, wherein the epitope, when in the lipopolysaccharide inner core of a cell of *Neisseria meningitidis*, is accessible by an antibody specific to the epitope in the presence and absence of a bacterial capsule.

92. (New) A method for eliciting in a recipient subject an immune response generating an antibody capable of selectively binding to the lipopolysaccharide inner core epitope of *Neisseria meningitidis* immunotype L3 strain H44/76 *galE*, the method comprising:

administering to a recipient subject an immunogenic composition comprising a region of the lipopolysaccharide inner core of *Neisseria meningitidis* immunotype L3 strain H44/76 *galE*, the inner core region having the formula:



the method eliciting in the recipient subject an immune response generating an antibody that selectively binds to an epitope of the region of the lipopolysaccharide inner core of a *galE* mutant strain of *Neisseria meningitidis* H44/76 immunotype L3, wherein said epitope consists essentially of a phosphoethanolamine (PEtn) group linked to position 3, but not to position 6 or 7, of the HepII moiety of the lipopolysaccharide inner core of *Neisseria meningitidis* immunotype L3, and wherein said inner core epitope is selectively reactive with the monoclonal antibody B5 produced by the hybridoma deposited with the accession number IDAC 260900-1.

93. (New) The method according to claim 92, wherein the immunogenic composition comprises the lipopolysaccharide inner core of *Neisseria meningitidis* immunotype L3 strain H44/76 *galE*.

94. (New) The method according to claim 92, wherein the region of the lipopolysaccharide inner core of a *galE* mutant strain of *Neisseria meningitidis* H44/76 immunotype L3 further comprises a -KDO-KDO-Lipid A moiety.

95. (New) The method according to claim 92, wherein the Glc is linked to a moiety not preventing access to the epitope of an antibody specifically reactive to said epitope.

96. (New) The method according to claim 92, wherein the region of the lipopolysaccharide inner core is linked to the outer core of a strain of *Neisseria meningitidis*, or a fragment thereof.

97. (New) The method according to claim 92, wherein the antibody generated in the recipient subject specifically binds to the lipopolysaccharide inner cores of *Neisseria meningitidis* immunotypes L1, L3, L7, L8, L9, L10, L11, and L12, but does not bind selectively to the lipopolysaccharide inner core of *Neisseria meningitidis* immunotypes L2, L4, L5, and L6.

98. (New) The method according to claim 92, wherein the antibody generated in the recipient subject can reduce a *Neisseria meningitidis* bacteremia, wherein the *Neisseria meningitidis* bacteremia is of a *Neisseria meningitidis* immunotype selected from the group consisting of: L1, L3, L7, L8, L9, L10, L11, and L12.

99. (New) The method according to claim 92, wherein the antibody generated in the recipient subject can initiate opsonophagocytosis of a *Neisseria meningitidis*.

100. (New) A monoclonal antibody, wherein the monoclonal antibody is monoclonal antibody B5 produced by the hybridoma deposited with the accession number IDAC 260900-1.